STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 147802

TO: Ralph J Gitomer
Location: REM-3D65&3E71
Art Unit: 1651
Wednesday, March 23, 2005

Case Serial Number: 09/950052

From: Noble Jarrell
Location: Biotech-Chem Library
Rem 1B71
Phone: 272-2556

Noble.jarrell@uspto.gov

Search Notes

```
=> d his

     (FILE 'HOME' ENTERED AT 11:21:19 ON 23 MAR 2005)

     FILE 'WPIX' ENTERED AT 11:21:27 ON 23 MAR 2005
L1        81529 (B04-D01 OR C04-D01 OR B10-A07 OR C10-A07)/MC OR (L*** OR L***)
L2           56 (?HEPTULOSE OR HEPTULOPYRANOSE OR PERSEULOSE)/BIX
                E HEPTULOSE/DCN
                E MANNOHEPTULOSE/DCN
                E E4+ALL
L3            9 R18009/DCN
                E MANNOHEPTULOSE/CN
L4            1 E3-4
L5        12974 (B12-J02 OR C12-J02 OR B14-E12 OR C14-E12)/MC
L6          262 A61K031-7004/IPC
L7          922 (L1 OR L2 OR L3 OR L4 OR L6) AND L5
L8            4 L2-4 AND L5
                SEL AN 4 L8
L9            1 E1 AND L8
L10           3 L8 NOT L9

=> b wpix
FILE 'WPIX' ENTERED AT 11:36:23 ON 23 MAR 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED:          21 MAR 2005      <20050321/UP>
MOST RECENT DERWENT UPDATE:     200519        <200519/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
    PLEASE VISIT:
 http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
    http://thomsonderwent.com/coverage/latestupdates/          <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
    GUIDES, PLEASE VISIT:
    http://thomsonderwent.com/support/userguides/              <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
    DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
    FIRST VIEW - FILE WPIFV.
    FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv  <<<

>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
    PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
    FOR DETAILS. <<<

=> d all 19 tot

L9   ANSWER 1 OF 1  WPIX  COPYRIGHT 2005 THE THOMSON CORP on STN
AN   2002-462572 [49]   WPIX
DNC  C2002-131354
TI   Method of obtaining beneficial biological results associated with calorie
     restriction, useful in treatment of trauma, by administering composition
     comprising agent which blocks metabolism of glucose.
DC   B03
IN   PITHA, J; ROTH, G
PA   (PITH-I) PITHA J; (ROTH-I) ROTH G
```

CYC 1
PI US 2002035071 A1 20020321 (200249)* 4 A61K031-70
ADT US 2002035071 A1 CIP of US 1997-889877 19970708, US 2001-950052 20010912
PRAI US 2001-950052 20010912; US 1997-889877 19970708
IC ICM A61K031-70
AB US2002035071 A UPAB: 20020802
NOVELTY - Method of obtaining beneficial biological results associated with calorie restriction by administering a composition comprising at least one active agent (I), which blocks metabolism of glucose as a source of energy in cells to an animal.

ACTIVITY - Anorectic; Tranquilizer; Vulnerary.

MECHANISM OF ACTION - Glucose metabolism blocker; Glucokinase inhibitor; Aldolase inhibitor; Hexokinase inhibitor.

USE - For obtaining beneficial biological results associated with calorie restriction, for lowering the temperature in body tissue (both claimed) useful in the treatment of trauma, and for inducing weight loss.

The use of mannoheptulose (A), obtained from avocados, for the purposes of obtaining benefits associated with inhibiting metabolism of glucose was tested in beagle dogs. A total of 12 beagles were utilized for the study and were fed a standard commercial diet throughout the study period. Fasting blood samples were drawn 7, 6, 4 and 2 days prior to administration of (A), in the form of a freeze-dried avocado meal containing (A) (10 - 12%). The preparation was adjusted to provide doses of (A) in amounts of 2, 20 and 200 mg/kg body weight (MH-2, MH-20, MH-200, respectively). Fasting blood samples were collected 1,3, 5 and 7 days after initiation of the administration of (A). It was observed that the insulin levels were lowered by up to 35% in dogs who had received the avocado meal, compared to the dogs on similar diet without the meal. The changes were similar to the decreases found in mammals on caloric restricted diets.

ADVANTAGE - The composition blocks the use of glucose as a source of energy in cells in amounts to lower tissue glucose level and decrease plasma insulin levels in a non-diabetic animal. The composition provides beneficial physiological regulation of biological processes while allowing animals to avoid undesirable effects of caloric restriction and provides improved health benefits. 5-Thioglucose is excreted in urine, and thus is advantageous to use for chronic administration over 2-deoxy-D-glucose. Mannoheptulose is also a safe alternative to 2-deoxy-D-glucose, as is free of the unwanted side effects seen with the long-term administration of 2-deoxy-D-glucose. 1,5-Anhydro-D-glucitol is non-reducing and thus cannot be incorporated into glycolipids, glycoproteins and glycogen. Its effects are specific to glycolysis and does not affect other metabolic processes or exert toxicity of the glucose antimetabolites. 2,5-Anhydro-D-mannitol and 2,5-anhydro-glucitol are capable of blocking the utilization of both glucose and fructose.

Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: B04-D01; B07-A02; B10-A07; B14-D06; B14-D08; B14-E12; B14-L06; B14-N17B; B14-S07; B14-S12

=> d all l10 tot

L10 ANSWER 1 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2005-037018 [04] WPIX
CR 2003-585581 [55]
DNC C2005-012382
TI Solid oral dosage form, useful to decrease serum insulin levels and body weight, comprises mannoheptulose and a controlled release system.

DC A96 B05
IN CHAPNICK, D I; CHAPNICK, L G
PA (CHAP-I) CHAPNICK D I; (CHAP-I) CHAPNICK L G
CYC 1
PI US 2004228933 A1 20041118 (200504)* 6 A61K035-78
ADT US 2004228933 A1 Provisional US 2001-343576P 20011026, Cont of US 2002-280332 20021025, US 2004-868232 20040615
PRAI US 2001-343576P 20011026; US 2002-280332 20021025; US 2004-868232 20040615
IC ICM A61K035-78
ICS A61K031-70
AB US2004228933 A UPAB: 20050117
NOVELTY - Solid oral dosage form (I) to be swallowed, comprises mannoheptulose and a controlled release system.
ACTIVITY - Antidiabetic; Anorectic.
MECHANISM OF ACTION - Hexokinase inhibitor.
USE - (I) is useful to decrease serum insulin levels and body weight in humans.
The ability of (I) to decrease insulin levels was tested in patients. The results showed that (I) effectively lowered the plasma insulin levels by 81% within two hours of administration of (I).
ADVANTAGE - (I) administered orally does not cause side effects such as irritation.
Dwg. 0/0
FS CPI
FA AB; DCN
MC CPI: A12-V01; B04-C02A2; B07-A02B; B10-B02J; B12-M10A; B12-M10B; B14-D06; B14-E12; B14-F09; B14-S04

L10 ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2003-585581 [55] WPIX
CR 2005-037018 [04]
DNC C2003-158482
TI Oral dosage form used to lower serum insulin levels and weight, comprises mannoheptulose and controlled release system.
DC A96 B05
IN CHAPNICK, D L G I; CHAPNICK, D I; CHAPNICK, L G
PA (CHAP-I) CHAPNICK D L G I; (QUAL-N) QUALITY VITAMINS INC
CYC 100
PI US 2003092669 A1 20030515 (200355)* 6 A61K031-7012
WO 2004039356 A1 20040513 (200439) EN A61K009-22
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
AU 2002368315 A1 20040525 (200468) A61K009-22
ADT US 2003092669 A1 Provisional US 2001-343576P 20011026, US 2002-280332 20021025; WO 2004039356 A1 WO 2002-US35636 20021107; AU 2002368315 A1 AU 2002-368315 20021107
FDT AU 2002368315 A1 Based on WO 2004039356
PRAI US 2001-343576P 20011026; US 2002-280332 20021025
IC ICM A61K009-22; A61K031-7012
ICS A61K009-52; A61K031-198; A61K031-70; A61K035-78
AB US2003092669 A UPAB: 20050117
NOVELTY - An oral dosage form comprises mannoheptulose and a controlled release system.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(a) a method of decreasing serum insulin and controlling weight, comprising ingesting the oral dosage form; and

(b) a method of preparing the oral dosage form, comprising extracting mannoheptulose (MH) from avocado by ethanolic extraction.

ACTIVITY - Hypotensive; Cytostatic; Anorectic; Antiarteriosclerotic; Vasotropic.

A six-week double-blind study was conducted in thirteen healthy male human, aged 37-57, each of at least 40 pounds overweight. The active compound group not only stabilized their eating patterns, but also experienced considerable weight loss. Those that were not given the active dosage forms demonstrated elevated C-peptide levels and elevated glucose:insulin ratio. 3 Hours after administering 1 dose of MH, serum insulin levels were, on average, 22.4% lower than the baseline fasting insulin levels obtained just 4 hours earlier. The result demonstrated that the immediate insulin suppressing effect of MH did not result in an increase in serum glucose or in the development of acute hyperglycemia.

MECHANISM OF ACTION - Hexokinase-Inhibitor.

USE - The invention is used to lower serum insulin levels and weight. It is useful for treatment of hyperinsulinemia, which promotes hypertension, suppresses the release of growth hormone, and harms the kidneys. Excess insulin can also increase the risk and progression of certain cancers and is a contributory factor in benign prostate enlargement. High serum insulin is associated with the development of obesity and related heart problems including degenerative joint disease, atherosclerosis, and impotence.

ADVANTAGE - Enterically coated MH proves to be effective short-term and long-term, in lowering elevated serum insulin. It prevents diarrhea. The relatively small dose of MH can be expected to reliably lower insulin levels without inducing hyperglycemia.

Dwg. 0/0

FS CPI
FA AB; DCN
MC CPI: A12-V01; B04-C02A; B07-A02B; B10-B02J; B14-D01; B14-E12; B14-F01; B14-F02; B14-F02B; B14-F07; B14-F09; B14-H01; B14-L06

L10 ANSWER 3 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2003-341309 [32] WPIX
DNC C2003-089517
TI New orthomolecular vitamin E derivatives useful for the treatment of e.g. cancer.
DC B02 D21 E13
IN WILBURN, M D
PA (WILB-I) WILBURN M D
CYC 1
PI US 2003007961 A1 20030109 (200332)* 28 A61K038-44
ADT US 2003007961 A1 US 2001-886472 20010622
PRAI US 2001-886472 20010622
IC ICM A61K038-44
ICS A61K031-714; A61K031-726
AB US2003007961 A UPAB: 20030522

NOVELTY - Orthomolecular vitamin E derivatives (I) are new.

DETAILED DESCRIPTION - Orthomolecular vitamin E derivatives of formula (I), their salts, esters and solvates are new.

dotted line = optional double bond;

A, B, D, E = H or methyl;

R = reaction product derived from Q1, Q2 or phenyl (optionally substituted by 1-5 Q3);

Q1 = e.g. (flava-3-ol)n, alpha -ketoglutaric acid, alanine, flavin coenzymes (such as flavin mononucleotide or flavin adenine dinucleotide), para-amino benzoic acid (PABA) or zeaxanthin;

n = 1-12;

Q2 = 1-30C alkyl, 2-30C alkenyl or 2-30C alkynyl (all optionally substituted by 1-12 OH, carboxy, amino, halo, nitro, sulfhydryl or J);

J = phenyl or 5-7 membered heterocyclic ring (containing at least one O, N or S) (both optionally substituted by 1-5 OH, carboxy, halo, nitro, amino, sulfhydryl, methyl, 2-10C alkyl, 2-10C alkenyl, 2-10C alkynyl, methoxy, 2-8C alkoxy or -OC(O)R2 (all optionally substituted, and in which at least one C of alkyl, alkenyl or alkynyl is optionally replaced by N, O or S));

R2 = trifluoromethyl, methyl, 1-10C alkyl, 2-10C alkenyl or 2-10C alkynyl (in which at least one C of alkyl, alkenyl or alkynyl is optionally replaced by N, O or S);

Q3 = OH, carboxy, amino, halo, nitro, sulfhydryl, trifluoromethyl, methyl, 1-8C alkyl, 2-8C alkenyl, 2-8C alkynyl or 2-8C alkoxy (all optionally substituted, and in which at least one C of alkyl, alkenyl or alkynyl is optionally replaced by N, O or S).

The stereochemistry at each of the 2', 4' and 8' positions is R or S.

Full definitions are given in the DEFINITIONS (Full Definitions) field.

ACTIVITY - Analgesic; Ophthalmological; Antiinflammatory; Cytostatic; Anorectic; Tranquilizer; Antidepressant; Nootropic; Neuroprotective; Antiparkinsonian; Hepatotropic; Antialcoholic; Cardiant; Antiarthritic; Osteopathic; Antirheumatic; Immunosuppressive; Dermatological; Vasotropic; Antithyroid; Antipsoriatic; Nephrotropic; Antidiabetic; Cerebroprotective; Anti-HIV; Antiarteriosclerotic; Gastrointestinal; Relaxant; Vasotropic; Antisickling; Respiratory; Anticoagulant; Gynecological; Hemostatic; Antiasthmatic; Antigout; Antianemic.

MECHANISM OF ACTION - Platelet Aggregation Inhibitor; Hydroxymethylglutyryl Coenzyme-A (HMG CoA) Reductase Inhibitor.

USE - For effecting a biological activity in an animal, such as aging, longevity, nerve activity, hematopoiesis, maintenance of blood cells, hepatic activity, nephritic activity, heart and cardiovascular function, pulmonary function, muscular function, cartilage health, bone health, joint health, gastrointestinal function, reproductive system function, vision, immune function, cell membrane integrity, pain and inflammation; for treating and preventing cancer, obesity, anxiety, depression, depression secondary to a chronic disease, Alzheimer's disease, Parkinson's disease, demyelineating disorder, peripheral neuropathy, enhancing mood and behavior, cirrhosis, chronic liver disease, alcoholic liver damage, toxic chemical exposure, NSAID-liver damage, estrogen induced liver problems, bile disorder, environmental chemical hypersensitivity, heart and/or artery disease risk due to elevated blood levels of homocysteine, osteoarthritis, rheumatoid arthritis, fibromyalgia, joint injuries, joint inflammation, joint degeneration, osteoporosis, organ transplant rejection, graft rejection, lupus, uvetitis, Bechet's disease, Graves disease, Guillain-Barre syndrome, psoriasis, acute dermatomyositis, atopic skin disease, scleroderma, eczema, aplastic anemia, primary cirrhosis, autoimmune hepatitis, ulcerative colitis, Crohn's disease, amyotrophic lateral sclerosis, myasthenia gravis, multiple sclerosis, hepatic syndrome, glomerulonephritis, rheumatoid arthritis and diabetes mellitus; for reducing the risk of Sudden Infant Death Syndrome; for maintaining and effecting neuronal membrane ratios of phosphatidyl choline and cholesterol (all claimed). Also useful for treating e.g. septic shock, chronic fatigue syndrome, cachexia, head trauma, immune senescence, inflammatory bowel disorder, muscular dystrophy, neuropathic pain, nervous insult, peripheral nerve injury, renal failure, retinal ischemia, skin aging, diseases relating to lifespan and proliferative capacity of cells, diseases induced by cellular senescence, oxidative stress, age-related memory impairment, ataxia-telangiectasia syndrome, myocardial infarction, peripheral vasoconstriction, organ dysfunction, platelet consumption and activation, mitral valve pathology associated with acute perioperative pulmonary hypertension, chronic obstructive arterial disease, Raynaud's syndrome, renal artery stenosis, deep vein thrombosis, peripheral arterial

occlusion, other blood stream thromboses, alloxan action, free fatty acid induced pancreatitis, abetaliporpoteinemia, spontaneous abortion, infertility, sterility, sexual performance, post-menopausal syndrome, prostaglandin disorders, cataracts, ocular hemorrhage, degenerative retinal damage, retinopathy, endothelial injury, asthma, bronchitis, pneumonia, systemic lupus erythematosus, Zollinger-Ellison syndrome, gout, Batter's syndrome; and useful as dietary supplements.

ADVANTAGE - (I) Enhances activity of tocopherols, tocotrienols and the covalently linked compound in the relevant bio-chemical pathways that affects various conditions such as aging and longevity. (I) Decreases the release of superoxides by human peripheral blood neutrophils; reduces the levels of tumor necrosis factor and interleukin-1; increases antibody titers in blood; reduces total serum LDL-cholesterol, apolipoprotein B, thromboxane A2, platelet factor 4, triglycerides and glucose; and decreases lipoprotein A concentration in blood.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B03-A; B03-H; B04-B03A; B06-A01; B06-A03; B06-D09; B07-D09; B10-A04; B10-A17; B10-A22; B10-B02E; B10-B02J; B10-B03B; B10-C02; B10-C03; B10-C04C; B10-C04E; B10-E02; B14-C01; B14-C03; B14-C09; B14-D05D; B14-E08; B14-E10C; B14-E11; B14-E12; B14-F01; B14-F01B; B14-F01D; B14-F02; B14-F02B; B14-F02F3; B14-F03; B14-F04; B14-G01; B14-G02; B14-H01B; B14-J01A1; B14-J01A3; B14-J01A4; B14-J01B4; B14-J05; B14-K01; B14-K01A; B14-M01C; B14-N01; B14-N03; B14-N10; B14-N12; B14-N14; B14-N17; B14-P02; B14-S01; B14-S04; B14-S06; D08-B; E06-A01; E06-A03; E06-D09; E07-A02D; E07-D09A; E07-D12; E10-A04; E10-A17B; E10-A22G; E10-B02A1; E10-B02D6; E10-B03B1; E10-C02A; E10-C02F; E10-C03; E10-C04C; E10-C04L2; E10-E02E1; E10-E02F1; E10-E04M1

=> b home
FILE 'HOME' ENTERED AT 11:37:00 ON 23 MAR 2005

=>